



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,490	12/14/2001	Daniel P. Segall	6308	5635

7590 07/30/2003
Samuels, Gauthier & Stevens LLP
Suite 3300
225 Franklin Street
Boston, MA 02110

EXAMINER

NGUYEN, CHAU N

ART UNIT PAPER NUMBER

2831

DATE MAILED: 07/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,490

Applicant(s)

SEGALL ET AL.

Examiner

Chau N Nguyen

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 13-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 9-12 is/are rejected.
- 7) ☒ Claim(s) 6-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-3, 5, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Escallier et al. (4,501,929) in view of Buchalter (5,330,811).

Escallier et al. discloses an electrically conductive multilayer composite comprising first (16) and second polymeric films (28), each of the films being flexible and having upper and lower surfaces, the second film being thermoformable at temperatures at and above its glass transition temperature (polyimide), a flexible electrically conductive layer (20) applied to the upper surface of the first film (16), and an adhesive interlayer (30) adhering the lower surface of the first film (16) to the upper surface of the second film (28) (re claim 1). Escallier et al. also discloses the second being resilient (polyimides) (re claims 2 and 11) and the conductive layer being interfacially fixed with respect to the upper surface of the first film (re claim 12).

Escallier et al. does not specifically disclose the adhesive interlayer having elastic properties sufficient to accommodate relative movement between the thus adhered films occasioned by flexure of the composite. Buchalter discloses a composite (fig. 2) comprising an interlayer adhesive which is pressure sensitive (re claim 5) and has elastic properties at temperature between about -50 150 degrees C (V-23, col. 2, lines 45-46) (re claim 3). It would have been obvious to one skilled in the art to use the adhesive interlayer as taught by Buchalter for the adhesive layer (30) of Escallier et al. since the adhesive layer of Buchalter has good elastic properties.

4. Claims 4, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Escallier et al. in view of Buchalter as applied to claim 1 above, and further in view of Bow.

The Escallier et al. discloses the invention substantially as claimed including the conductive layer being adhered to the upper surface of the first by means of an adhesive layer (22). Escallier et al. does not disclose the conductive layer being an aluminum layer having a thickness of not more than 20 mils. Bow discloses a composite comprising a conductive layer (12) which is an aluminum layer, has a thickness of not more than 20 mils, and adhered to a polymeric layer by an adhesive layer (24). It would have been obvious to one skilled in the art to apply the teaching of Bow in the composite of Escallier et al. since aluminum is well-known for its relatively high conductivity.

Allowable Subject Matter

5. Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not teach or suggest an electrically conductive multilayer composite comprising all the features as recited in the claims and in combination with the second film having a higher bulk modulus of elasticity than that of the first film (re claim 6), the composite further comprising a third flexible polymeric film adhered to the lower surface of the second film by a second adhesive layer (re claim 7), and a second flexible conductive layer applied to the side of the composite opposite to that to which the first mentioned electrically conductive layer is applied (re claim 8).

Response to Arguments

7. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N Nguyen whose telephone number is 308-0693. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308 3682. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305 3432 for regular communications and (703) 305 1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Chau N Nguyen
Primary Examiner
Art Unit 2831

CN
July 18, 2003